

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Claims 1 – 79 (Cancelled)

80. (Previously presented) A method for monitoring intra-thoracic fluid content using an implanted cardiac stimulation device comprising at least two implanted electrodes, the method comprising:

responsive to occurrence of a cardiac event, delivering an impedance measurement pulse at a predetermined interval therefrom;

measuring impedance between the two electrodes using the delivered impedance measurement pulse;

performing the first three steps repeatedly over a period extending over multiple days to acquire a set of impedance data;

employing the set of impedance data to determine whether intra-thoracic fluid content is increasing or decreasing; and

wherein the device comprises leads carrying the electrodes and wherein the method further comprises employing the measured impedances to assess the integrity of the leads.

81. (Currently amended) ~~The method of claim 80,~~ A method for monitoring intra-thoracic fluid content using an implanted cardiac stimulation device comprising at least two implanted electrodes, the method comprising:

responsive to occurrence of a cardiac event, delivering an impedance measurement pulse at a predetermined interval therefrom;

measuring impedance between the two electrodes using the delivered impedance measurement pulse;

performing the first three steps repeatedly over a period extending over multiple days to acquire a set of impedance data;

employing the set of impedance data to determine whether intra-thoracic fluid content is increasing or decreasing;

wherein the device comprises leads carrying the electrodes and wherein the method further comprises employing the measured impedances to assess the integrity of the leads and further comprising declaring the set of impedance data flawed responsive to the assessment of the integrity of the leads.

82. (Currently amended) ~~The method of claim 81,~~ A method for monitoring intra-thoracic fluid content using an implanted cardiac stimulation device comprising at least two implanted electrodes, the method comprising:

responsive to occurrence of a cardiac event, delivering an impedance measurement pulse at a predetermined interval therefrom;

measuring impedance between the two electrodes using the delivered impedance measurement pulse;

performing the first three steps repeatedly over a period extending over multiple days to acquire a set of impedance data;

employing the set of impedance data to determine whether intra-thoracic fluid content is increasing or decreasing;

wherein the device comprises leads carrying the electrodes and wherein the method further comprises employing the measured impedances to assess the integrity of the leads and wherein assessment of the integrity of the leads comprises comparing a measured impedance to a prior measured impedance to determine whether the measured impedance differs from the prior measured impedance by more than a defined amount.

83. [[82.]] (Cancelled, renumbered)

84. ~~[[83.]]~~ (Currently amended, renumbered) A method for monitoring intra-thoracic fluid content using an implanted cardiac stimulation device comprising at least two implanted electrodes, the method comprising:

responsive to occurrence of a cardiac event, delivering an impedance measurement pulse at a predetermined interval therefrom;

measuring impedance between the two electrodes using the delivered impedance measurement pulse;

performing the first three steps repeatedly over a period extending over multiple days to acquire a set of impedance data;

employing the set of impedance data to determine whether intra-thoracic fluid content is increasing or decreasing; and

~~herein~~ declaring the set of impedance data flawed is performed responsive to a said measured impedance differing from a prior said measured impedance by more than a defined amount.

85. ~~[[84.]]~~ (Currently amended, renumbered) The method of claim ~~[[83]]~~ 84, further comprising declaring the set of impedance data valid responsive to the said measured impedance differing from the said prior measured impedance by less than the defined amount.

86. ~~[[85.]]~~ (Previously presented, renumbered) A method for monitoring intra-thoracic fluid content using an implanted cardiac stimulation device comprising at least two implanted electrodes, the method comprising:

responsive to occurrence of a cardiac event, delivering an impedance measurement pulse at a predetermined interval therefrom;

measuring impedance between the two electrodes using the delivered impedance measurement pulse;

performing the first three steps repeatedly over a period extending over multiple days to acquire a set of impedance data;

employing the set of impedance data to determine whether intra-thoracic fluid content is increasing or decreasing; and

wherein the device comprises at least a third electrode and wherein the method further comprises performing a cross check of the measured impedance values by measuring an impedance using the third electrode.

87. [[86.]] (Previously presented, renumbered) The method of claim 85, wherein the method further comprises declaring the set of impedance data flawed is performed responsive to the impedance measured using the third electrode.

~~87—94.~~ 88 — 95. (Cancelled. renumbered)

96. [[95.]] (Amended, renumbered) [[A]] An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,:

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and

wherein the device comprises leads carrying the electrodes and wherein the device further comprises means for employing the measured impedances to assess the integrity of the leads.

97. [[96.]] (Amended, renumbered) ~~The device of claim 95,~~ An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,;

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and

wherein the device comprises leads carrying the electrodes and wherein the device further comprises means for employing the measured impedances to assess the integrity of the leads; and

further comprising means for declaring the set of impedance data flawed responsive to the assessment of the integrity of the leads.

98. [[97.]] (Currently amended, renumbered) ~~The device of claim 96,~~ An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,;

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and

wherein the device comprises leads carrying the electrodes and wherein the device further comprises means for employing the measured impedances to assess the integrity of the leads; and

wherein the means for assessment of the integrity of the leads comprises means for comparing a measured impedance to a prior measured impedance to determine whether the measured impedance differs from the prior measured impedance by more than a defined amount.

99. [[98.]] (Currently amended, renumbered) [[A]] An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,;

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and

further comprising means for declaring the set of impedance data valid responsive to a measured impedance differing from a prior measured impedance by less than a defined amount.

100. [[99.]] (Currently amended, renumbered) [[A]] An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,;

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and

further comprising means for declaring the set of impedance data flawed responsive to a measured impedance differing from a prior measured impedance by more than a defined amount.

101. [[100.]] (Currently amended, renumbered) The device of claim 99, further comprising means for declaring the set of impedance data valid responsive to a measured impedance differing from a prior measured impedance by less than the defined amount.

102. [[101]]. (Currently amended, renumbered) [[A]] An implantable device capable of measuring intra-thoracic fluid content, comprising:

at least two implantable electrodes,;

means for determining occurrences of cardiac events;

an impedance measurement means for measuring impedance between the electrodes repeatedly over a period extending over multiple days to acquire a set of impedance data, the impedance measurement means comprising:

means responsive to occurrence of a cardiac event, for delivering an impedance measurement pulse separated by a predetermined interval therefrom;

means for measuring impedance between the two electrodes using the delivered impedance measurement pulse; and

means responsive to the set of impedance data for determining whether intra-thoracic fluid content is increasing or decreasing; and further comprising:

a third electrode;

means for measuring an impedance employing the third electrode and

means for performing a cross check of the set of impedance data by measuring an impedance using the third electrode.

103. ~~[[102.]]~~ (Currently amended, renumbered) The device of claim ~~[[101]]~~ 102, further comprising:

means for declaring the set of impedance data flawed responsive to the impedance measured using the third electrode.

104 – 107. ~~403–406.~~ (Cancelled, renumbered)